

1 42150/RJP/E264

A TRANSCEIVER METHOD AND SIGNAL THEREFOR EMBODIED IN A CARRIER
WAVE FOR A FRAME-BASED COMMUNICATIONS NETWORK

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ABSTRACT OF THE DISCLOSURE

A method and signal therfor embodied in a carrier wave for
sending information from transmit stations to receive stations
over a transmission medium of a frame-based communications
10 network. The information is sent in transmit frames having a
frame format comprising a fixed rate header, followed by a
variable rate payload, followed by a fixed rate trailer. The
fixed rate header includes a preamble. The preamble has a
repetition of four symbol sequences for facilitating power
15 estimation, gain control, baud frequency offset estimation,
equalizer training, carrier sensing and collision detection. The
preamble also includes a frame control field. The frame control
field has scrambler control information for frame scrambling
initialization, a priority field to determine the absolute
20 priority a transmit frame will have when determining access to
the transmission medium, a payload encoding field which
determines constellation encoding of payload bits in the variable
rate payload, and a header check sequence for providing a cyclic
redundancy check. The variable rate payload is transmitted
25 pursuant to dynamic adjustable frame encoding parameters for
improving transmission performance for a transmit frame being
transmitted from a transmitting station to a receiving station.
The header also includes a destination address field, a source
address field and an ethertype field.

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